

Application No. 09/821,410
Amndt. dated: December 15, 2005
Reply to Office Action mailed: November 14, 2005

REMARKS/ARGUMENTS:

Claims 1, 2, 4, 5, 8-16, 18, 20, 23-32, 34-45 and 47-52 are pending in the application. In this amendment, claims 1, 9, 16, 18, 26, 35, 36, 39, 43, 47, 48, 49 and 50 have been amended to address objections and grounds of rejection under 35 USC 112 set forth in the Office Action. Also in this amendment, claims 3, 6, 21 and 22 have been cancelled without prejudice or disclaimer, to advance prosecution of the application to allowance. No claims have been added.

Claim Objections – Office Action Section 2.

The Examiner is again thanked for noting various informalities in the claims. Corresponding corrections have been made in claims 12, 18, 26, 35, 36, 39, 43, 47, 48, 49 and 50. The reference in the Office Action to errors in claim 29 is presumed to be directed to claim 39, to which the requested corrections have been made. It is believed all objections have been addressed and satisfied.

Claim Rejections under 35 US 112, first and second paragraphs – Office Action Sections 4 and 6.

Applicant apologizes for the lack of correspondence between claims 9, 16, 26 and 39 presented in the Amendment dated November 1, 2005 and the previous version of those claims. This was due to inadvertent clerical error and no change was intended. Appropriate corrections have been made by this amendment.

Reference in the Office Action to the "configuration of claims" is not understood and appears to have no basis in 37 CFR 137 or in the MPEP. It is also noted the MPEP explicitly states: "There is no requirement that the words in the claim must match those used in the specification. Applicants are given a great deal of latitude in how they choose to define their invention so long as the terms and phrases used define the invention with a reasonable degree of clarity and precision." - MPEP 2173.05(e), Eighth Edition, August 2001, Revision October 2005.

However, in an effort to advance prosecution, in claim 1, the term "y_k" has been explicitly defined. The term "g_k" has been deleted, consistent with the specification at page 8, lines 3-8,

Application No. 09/821,410
Amndt. dated: December 15, 2005
Reply to Office Action mailed: November 14, 2005

It being noted that the subsequent mathematical derivations are based on that term being neglected. Particularly having amplified the existing definition of "x" in claim 1, the term " x_{k+n} " is inherently self defining; values of 'k' and 'n' used in association with x_{k+n} correspond to those associated with y_k and h_n in Equation (1). As noted in the preface to the rejections under this head, the specification is addressed to "one skilled in the art to which it pertains", and in the art to which the invention relates, a typical person of ordinary skill in the art may have at least an undergraduate degree and likely a post graduate degree. In context of the parameters of 35 USC 112, first paragraph, the rejection of claim 1 should now be withdrawn.

In relation to the rejection of claims 9, 16, 26 and 39 related to the recitation "training signal sequence", claims 9, 16 and 26 have been amended. The Examiner is respectfully reminded that *"Obviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. Ex parte Porter, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992) ("controlled stream of fluid" provided reasonable antecedent basis for "the controlled fluid") MPEP 2173.05(e), Eighth Edition, August 2001, Revision October 2005.* Claim 9 now recites "where X is a known training signal". In claim 16, in line 3, and in claim 26, line 6, ". . . a known training signal sequence" is now initially recited, providing antecedent for the subsequent recitations. This should meet the rejections under both the first and second paragraphs of 35 USC 112. No need is seen to use the adjective "known" to qualify "training signal sequence" at every occurrence in a claim because the initial recitation provides adequate antecedent basis for subsequent recitations, including the recitation "where X is the training signal sequence in matrix form". In claim 39, the existing recitations of "known training signal sequence" render the ground of rejection inapplicable and no related amendment has been made.

In claim 16, line 9, the definite article preceding coefficients" has been deleted. In claim 39, the recitation "the output signal" in line 13 has adequate antecedent basis in the recitation "an observed or measured output signal" in line 7 of that claim. See comments above regarding no requirement for an explicit antecedent basis for claim terms.

Application No. 09/821,410
Amndt. dated: December 15, 2005
Reply to Office Action mailed: November 14, 2005

Regarding the rejections of claims 3, 6, 21 and 22, the use of convergence techniques is explained at pages 9, paragraph [0020], page 11, paragraphs [0024] and [0025], and pages 15 and 16, paragraphs [0034] and [0035]. The rejection of claims 3, 6, 21 and 22 has been rendered moot by the cancellation of those claims, without prejudice or disclaimer, to advance prosecution of the application.

It is believed all of the rejections under 37 CFR 112, first and second paragraphs have been addressed and satisfied.

CONCLUSION.

It is believed all objections and grounds of rejection raised in the Office Action have been addressed and that all pending claims are in condition for allowance.

Favorable consideration and early allowance of the application are respectfully solicited. If there are any remaining issues that could be resolved by discussion, a telephone call to the undersigned attorney at (425) 402-4638 would be appreciated.

Date: December 15, 2005
Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Respectfully submitted,



N. Rhys Merrett
Attorney for Applicant
Reg. No. 27,250